

## SINGLE-PHASE MULTI-POLAR MAGNET TYPE GENERATOR FOR VEHICLES

### ABSTRACT

1 A rotating electrical machine such as an electrical generator that can be utilized to  
2 provide high efficiencies and high outputs in connection with a compact construction. This  
3 achieved by having a plurality of spaced permanent magnets of opposite polarity that cooperate  
4 with armature coils. The permanent magnets are disposed in circumferentially spaced  
5 orientation relative to the axis of relative rotation at a magnet electrical angle  $\theta$  that is in the  
6 range of  $120^\circ$  to  $140^\circ$